

FIGURE 1

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1	AGCTCCAGCCTAGGCGTTACCTGGAAAGAACATTGACATCCAGAACATT	60
61	AGATGGCTGACATCCAGAACATTGACATCCAGAACATT	120
121	TGCCTGTGATCTTGCCCTCAACTTCTCTTGGCATCGTGGCAATGGCTGGCAC	180
181	CTGTGCTACTGCCAAGTGCCTGGCAGCTTGGGACTTCATCCTGTGCTGCCCTCCAGG	240
241	TCATCCTCAACTTGGCGTGGGACTTCAGAGCCACTGGCTCTGGCTCTTGGGCTTCACCC	300
301	CAGCCATCTACACACTGGATGCCAGCTTCACCC	360
361	TGCTCATCTACCTCACCATGTATGCCAGCAGCCCTGGCAGCCACTGGCTCCAGAG	420
421	GGTACCTGGCTGTGGGACTGGCTCTGGCTGGCTCTGGCTGGCTCTGGCTGGCTGG	480
481	GCGCCGGCGTGGGCTACGGCGGCTACGGCGCTACGGCGGCTACGGCGGCTACCG	540
541	ATACGGCACGGCTGGGACGGCTGGGACGGGAGGGAGGGAGGGAGGGAGGGAGGG	600
601	GGGGGGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGG	660
661	TGAGGCTGGCCTACGGACGGCACGGGGAGGGAGGGAGGGAGGGAGGGAGGG	720
721	CGGGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGGAGGG	780
781	TGGCCGGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGG	840
841	ACGGGGCTTGGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGG	900
901	CCTACGGCCAACCTGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGG	960
961	CGGGCTTCCGGCCGGCTTACGGGCTTACGGGCTTACGGGCTTACGGGCTTACGG	1020
1021	ATCGAGGCCCCTCGTGGGTGAGTATGGAGGGATGGAGGGATGGAGGGATGGAGGG	1080
1081	CCAGGGCTCTCGTGGGTGAGTATGGAGGGATGGAGGGATGGAGGGATGGAGGG	1140
1141	CTAGACTAACCTGTCCCCAGGGGACCTAACATAACCCCTGGGAACGGCACCAAAA	1200
1201	TGTCAAGAACATCTAGGGAACATCTGGCCAGGTGGAGGG	1260
1261	GCAGAAGCAAAGTGGAGGG	1280

	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	370
V	A	F	A	L	R	R	Y	R	V	A	V	A	Y	A	H	A	T		
A	L	L	Q	H	D	A	S	A	V	G	A	W	L	R	A	D	E		
V	V	D	F	V	L	N	L	D	A	A	L	F	C	F	R	G	G		
A	L	T	P	T	S	R	Y	E	V	P	M	C	H	H	H	P	G		
G	G	T	V	K	V	P	P	W	P	G	A	L	S	R	H	Y	G		
V	N	S	C	C	A	T	A	A	L	V	R	I	A	S	H	G	R		
S	G	S	C	V	A	R	S	P	L	A	G	L	A	R	A	L			
G	V	P	L	F	L	L	F	V	Y	A	A	R	L	H	P	A			
P	M	E	I	A	T	A	L	C	G	W	R	H	C	S	R	G	D		
S	G	Q	F	C	F	R	A	L	A	L	G	H	A	Y	R	S	G		
D	L	L	W	C	F	S	S	A	E	A	F	T	P	Y	V	R	S	R	Q
L	L	A	I	I	S	R	L	L	F	C	A	G	T	L	G	A	P	P	
S	F	S	D	W	A	L	L	A	T	L	R	W	A	P	C	P	E	G	
I	I	P	A	A	Y	P	W	G	A	T	R	C	P	N	P	Q	M	R	
N	L	G	V	D	M	H	V	Y	V	R	R	L	S	L	W	V	S	P	
Q	A	P	A	L	T	R	L	R	D	G	A	A	F	C	L	R	W	S	
I	F	Q	L	T	L	V	G	V	L	Y	E	Y	A	S	R	R	G	L	
D	I	L	N	Y	Y	A	V	T	A	A	A	L	F	N	R	L	R	T	
A	V	L	L	I	I	L	A	G	R	L	A	A	R	A	F	A	P	L	
M	P	V	I	A	L	Y	A	Y	R	S	A	A	G	Y	R	R	R	R	
1	21	41	61	81	101	121	141	161	181	201	221	241	261	281	301	312	341	361	

FIGURE 2

FIGURE 3

FIGURE 4

20	P	T	40
60	T	M	80
100	V	I	120
140	L	Y	160
180	A	Y	200
220	R	S	240
260	V	A	280
300	N	V	320
340	L	G	360
380	F	A	400
420	R	S	440
460	G	G	
480	C	G	
500	H	A	
520	D	V	
540	A	S	
560	V	R	
580	G	A	
600	W	L	
620	F	W	
640	R	A	
660	E	S	
680	T	R	
700	I	A	
720	A	T	
740	L	C	
760	C	W	
780	G	H	
800	A	C	
820	L	A	
840	R	R	
860	S	G	
880	G	E	
900	C	P	
920	Q	P	
940	I	P	
960	S	P	
980	F	D	
1000	S	W	
1020	A	A	
1040	L	L	
1060	R	L	
1080	T	R	
1100	I	A	
1120	T	T	
1140	A	P	
1160	F	A	
1180	Q	D	
1200	I	V	
1220	S	C	
1240	R	C	
1260	T	S	
1280	A	N	
1300	L	L	
1320	R	R	
1340	T	T	
1360	I	I	
1380	A	A	
1400	F	F	
1420	Q	Q	
1440	I	I	
1460	S	S	
1480	R	R	
1500	T	T	
1520	I	I	
1540	A	A	
1560	F	F	
1580	Q	Q	
1600	I	I	
1620	S	S	
1640	R	R	
1660	T	T	
1680	I	I	
1700	A	A	
1720	F	F	
1740	Q	Q	
1760	I	I	
1780	S	S	
1800	R	R	
1820	T	T	
1840	I	I	
1860	A	A	
1880	F	F	
1900	Q	Q	
1920	I	I	
1940	S	S	
1960	R	R	
1980	T	T	
2000	I	I	
2020	A	A	
2040	F	F	
2060	Q	Q	
2080	I	I	
2100	S	S	
2120	R	R	
2140	T	T	
2160	I	I	
2180	A	A	
2200	F	F	
2220	Q	Q	
2240	I	I	
2260	S	S	
2280	R	R	
2300	T	T	
2320	I	I	
2340	A	A	
2360	F	F	
2380	Q	Q	
2400	I	I	
2420	S	S	
2440	R	R	
2460	T	T	
2480	I	I	
2500	A	A	
2520	F	F	
2540	Q	Q	
2560	I	I	
2580	S	S	
2600	R	R	
2620	T	T	
2640	I	I	
2660	A	A	
2680	F	F	
2700	Q	Q	
2720	I	I	
2740	S	S	
2760	R	R	
2780	T	T	
2800	I	I	
2820	A	A	
2840	F	F	
2860	Q	Q	
2880	I	I	
2900	S	S	
2920	R	R	
2940	T	T	
2960	I	I	
2980	A	A	
3000	F	F	
3020	Q	Q	
3040	I	I	
3060	S	S	
3080	R	R	
3100	T	T	
3120	I	I	
3140	A	A	
3160	F	F	
3180	Q	Q	
3200	I	I	
3220	S	S	
3240	R	R	
3260	T	T	
3280	I	I	
3300	A	A	
3320	F	F	
3340	Q	Q	
3360	I	I	
3380	S	S	
3400	R	R	
3420	T	T	
3440	I	I	
3460	A	A	
3480	F	F	
3500	Q	Q	
3520	I	I	
3540	S	S	
3560	R	R	
3580	T	T	
3600	I	I	
3620	A	A	
3640	F	F	
3660	Q	Q	
3680	I	I	
3700	S	S	
3720	R	R	
3740	T	T	
3760	I	I	
3780	A	A	
3800	F	F	
3820	Q	Q	
3840	I	I	
3860	S	S	
3880	R	R	
3900	T	T	
3920	I	I	
3940	A	A	
3960	F	F	
3980	Q	Q	
4000	I	I	
4020	S	S	
4040	R	R	
4060	T	T	
4080	I	I	
4100	A	A	
4120	F	F	
4140	Q	Q	
4160	I	I	
4180	S	S	
4200	R	R	
4220	T	T	
4240	I	I	
4260	A	A	
4280	F	F	
4300	Q	Q	
4320	I	I	
4340	S	S	
4360	R	R	
4380	T	T	
4400	I	I	

FIGURE 5A

hGALR3	I	M A D A Q N I S L D S P G	13
rGALR3	I	M A D I Q N I S L D S P G	13
rGALR1	I	M E L A P V N L S E G N G S D P E P P A E P R P L	25
hGALR3	I	S V G A V A V P V V F A L I F L L G T V C N	35
rGALR3	I	S V G A V A V P V I F A L I F L L G M V G N	35
rGALR1	I	F G I G V E N F I T L V V F G L I F A M G V L G N	50
hGALR3	II	G L V L A V L L Q P G P S A W Q E P G S T T D L F	60
rGALR3	II	G L V L A V L L Q P G P S A W Q E P S S T T D L F	60
rGALR1	II	S L V I T V L A R S K P G . . . K P R S T T N L F	72
hGALR3	II	I L N L A V A D L C F I L C C V P F Q A T I Y T L	85
rGALR3	II	I L N L A V A D L C F I L C C V P F Q A A I Y T L	85
rGALR1	II	I L N L S I A D L A Y L L F C I P F Q A T V Y A L	97

FIGURE 5B

	III												IV												
	hGALR3						rGALR3						hGALR3						rGALR3						
D	A	W	L	F	G	A	L	V	C	K	A	V	H	L	I	Y	L	T	M	Y	A	S	S	110	
D	A	W	L	F	G	A	F	V	C	K	T	V	H	L	I	Y	L	T	M	Y	A	S	S	110	
P	T	W	V	L	G	A	F	I	C	K	F	I	H	Y	F	T	V	S	M	L	V	S	I	122	
F	T	L	A	A	V	S	V	D	R	Y	L	A	V	R	H	P	L	R	S	R	A	L	R	T	135
F	T	L	A	A	V	S	L	D	R	Y	L	A	V	R	H	P	L	R	S	R	A	L	R	T	135
F	T	L	A	A	M	S	V	D	R	Y	V	A	I	V	H	S	R	R	S	S	L	R	V	147	
P	R	N	A	R	A	A	V	G	L	V	W	L	L	A	A	L	F	S	A	P	Y	L	S	Y	160
P	R	N	A	R	A	A	V	G	L	V	W	L	L	A	A	L	F	S	A	P	Y	L	S	Y	160
S	R	N	A	L	L	G	V	G	F	I	W	A	L	S	I	A	M	A	S	P	.	V	A	Y	171
Y	G	T	V	.	.	R	Y	G	A	L	E	L	C	V	P	A	W	.	E	D	A	R	R	R	182
Y	G	T	V	.	.	R	Y	G	A	L	E	L	C	V	P	A	W	.	E	D	A	R	R	R	182
Y	Q	R	L	F	H	R	D	S	N	Q	T	F	C	W	E	H	W	P	N	Q	L	H	K	K	196

FIGURE 5C

	V										VI										VII									
hGALR3	A	L	D	V	A	T	F	A	A	G	Y	L	L	P	V	A	V	S	L	A	Y	G	R	T	20'					
rGALR3	A	L	D	V	A	T	F	A	A	G	Y	L	L	P	V	A	V	V	S	L	A	Y	G	R	T	20'				
rGALR1	A	Y	V	V	C	T	F	V	F	G	Y	L	L	P	L	L	I	C	F	C	Y	A	K	V	221					
hGALR3	L	R	F	L	W	A	A	V	G	P	A	G	A	A	A	E	A	R	R	A	T	G	R	232						
rGALR3	L	C	F	L	W	A	A	V	G	P	A	G	A	A	A	E	A	R	R	A	T	G	R	232						
rGALR1	L	N	H	L	H	K	K	L	K	N	M	S	K	S	E	A	S	K	K	.	.	.	K	242						
hGALR3	A	G	R	A	M	L	A	V	A	A	L	Y	A	L	C	W	G	P	H	H	A	L	I	L	C	257				
rGALR3	A	G	R	A	M	L	A	V	A	A	L	Y	A	L	C	W	G	P	H	H	A	L	I	L	C	257				
rGALR1	T	A	Q	T	V	L	V	V	V	F	G	I	S	W	L	P	H	H	V	I	H	L	W	267						
hGALR3	F	W	Y	G	R	F	A	F	S	P	A	T	Y	A	C	R	L	A	S	H	C	L	A	Y	A	282				
rGALR3	F	W	Y	G	R	F	A	F	S	P	A	T	Y	A	C	R	L	A	S	H	C	L	A	Y	A	282				
rGALR1	A	E	F	G	A	F	P	L	T	P	A	S	F	F	R	I	T	A	H	C	L	A	Y	S	292					

FIGURE 5D

hGALR3	N S C L N P L V Y A L A S R H F R A R F R R L W P	307
rGALR3	N S C L N P L V Y S L A S R H F R A R F R R L W P	307
rGALR1	N S S V N P I I Y A P I, S E N F R K A Y K Q V F K	317
hGALR3	C G R R R . . R H R A R R A L R V R P A S S G	329
rGALR3	C G R R R H R R H R A H R A L R V Q P A S S G	332
rGALR1	C R V C N E S P. H G D A K E K N R I D T P P S T N	342
hGALR3	P P G C P G D A R P S G R L L A G G Q G P E P R	354
rGALR3	P A G Y P G D A R P R G W S M	350
rGALR1	C T H V	346
hGALR3	E G P V H G G E . . T R L T L S P R G P Q	368
rGALR3	G D A L R G G G E T R L T L S P R G P Q	370

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FIG. 6A

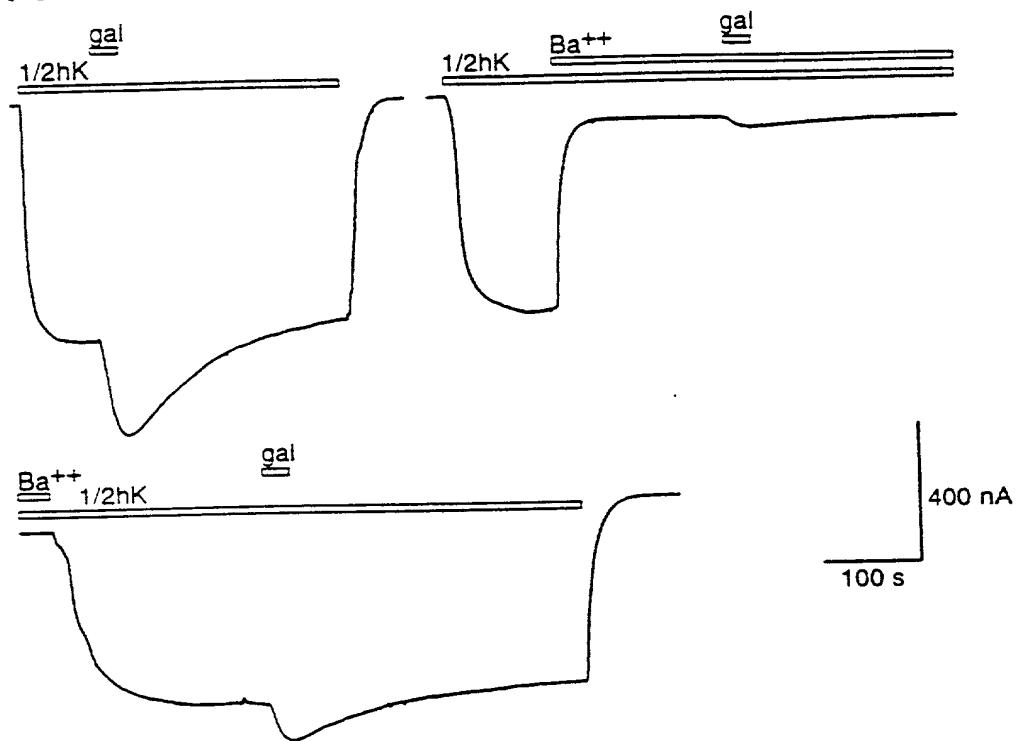


FIG. 6B

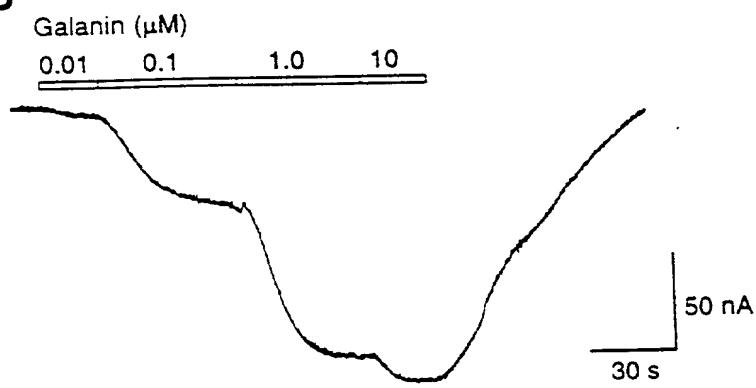


FIG. 7

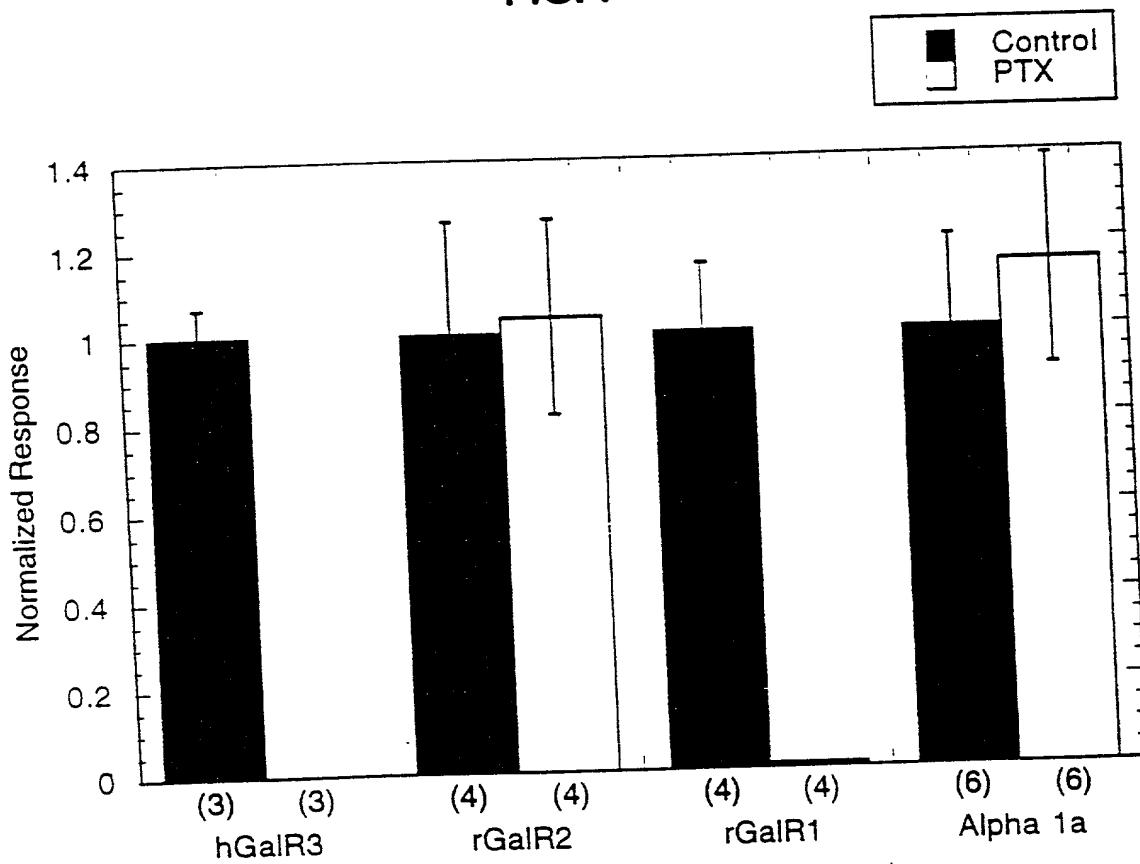


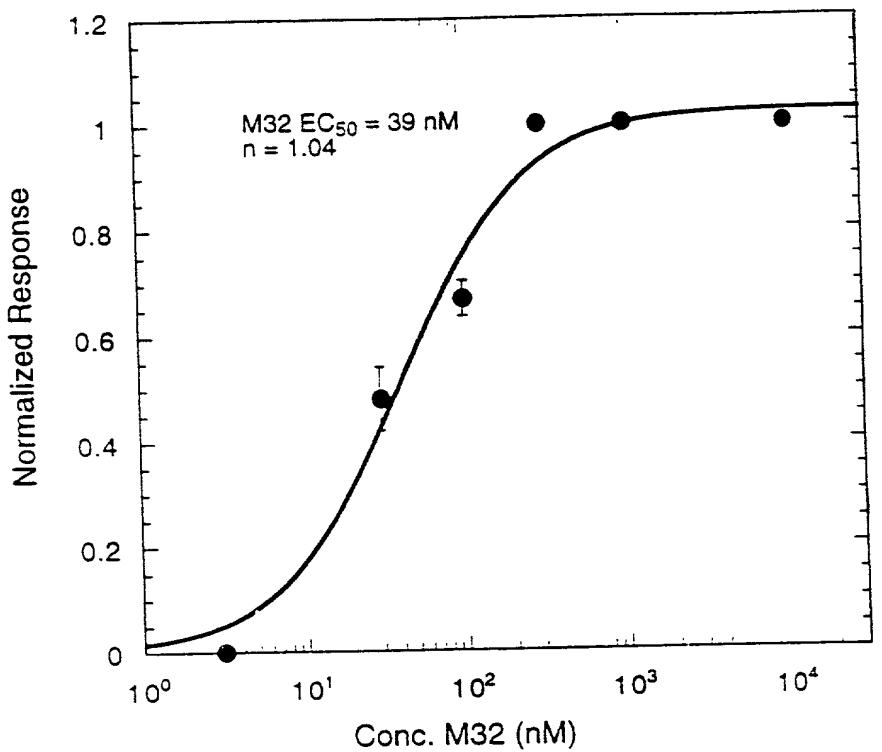
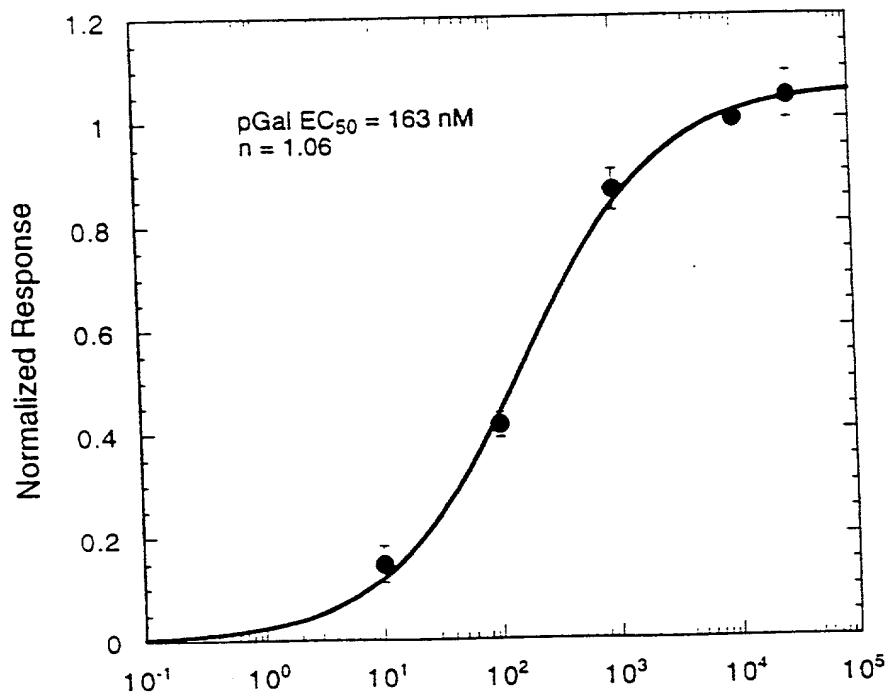
FIG. 8A**FIG. 8B**

FIG. 8C

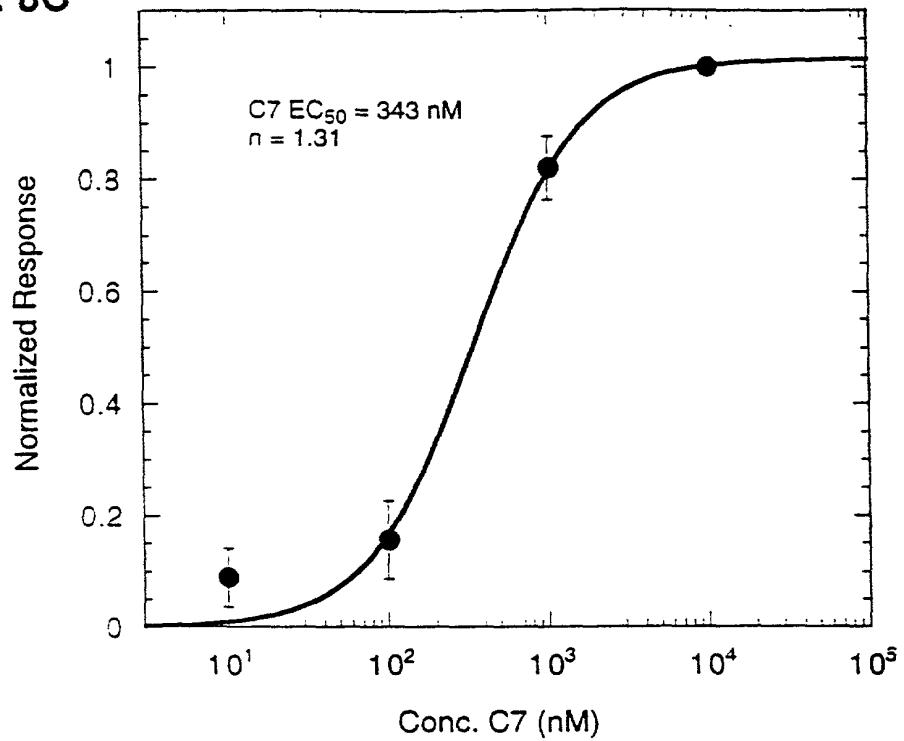


FIG. 8D

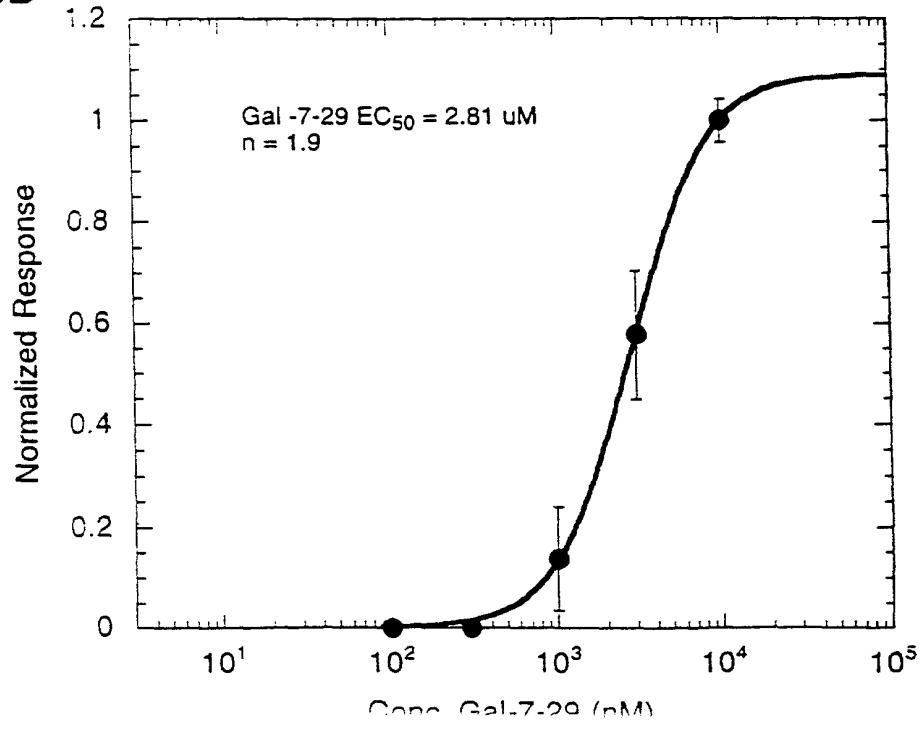
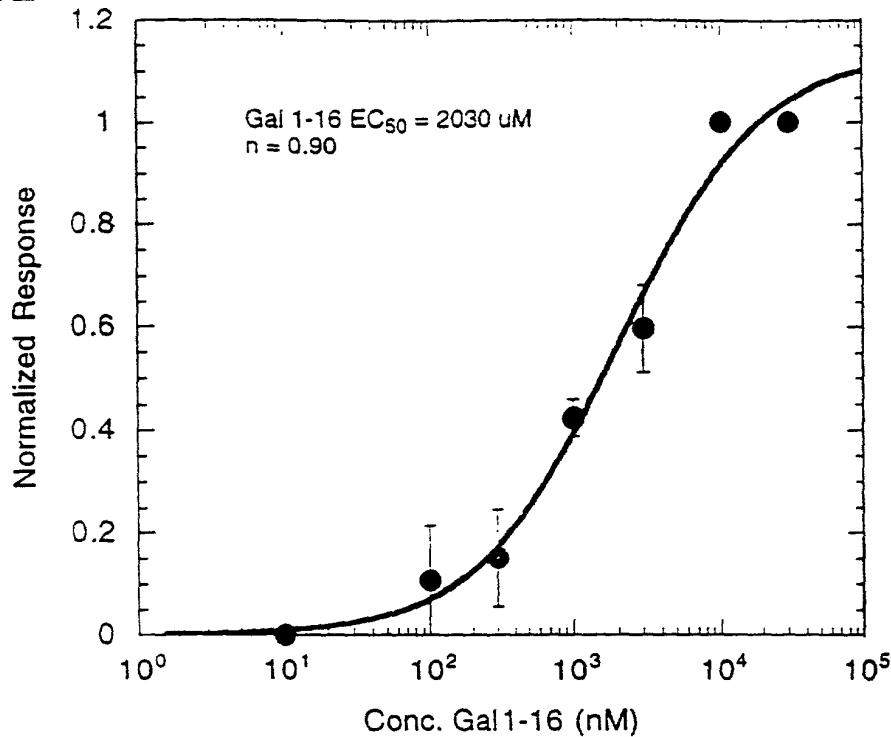
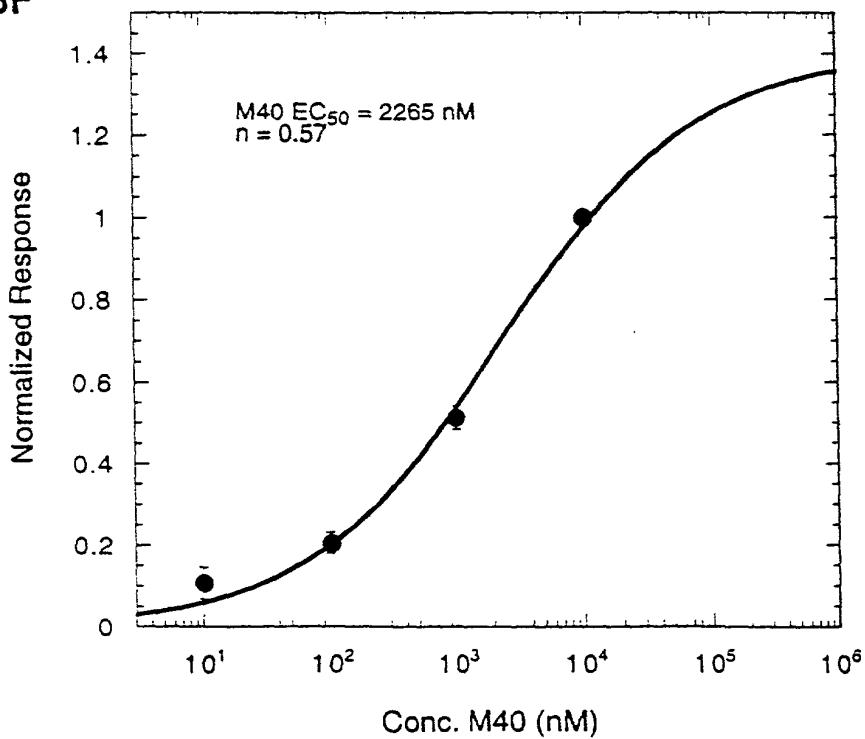


FIG. 8E**FIG. 8F**

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FIG. 9A

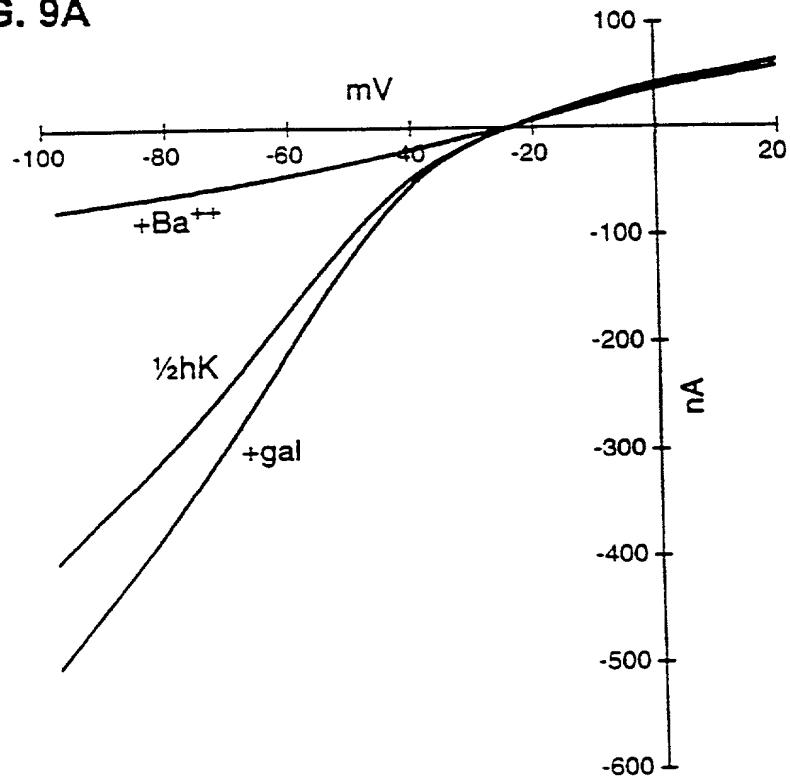
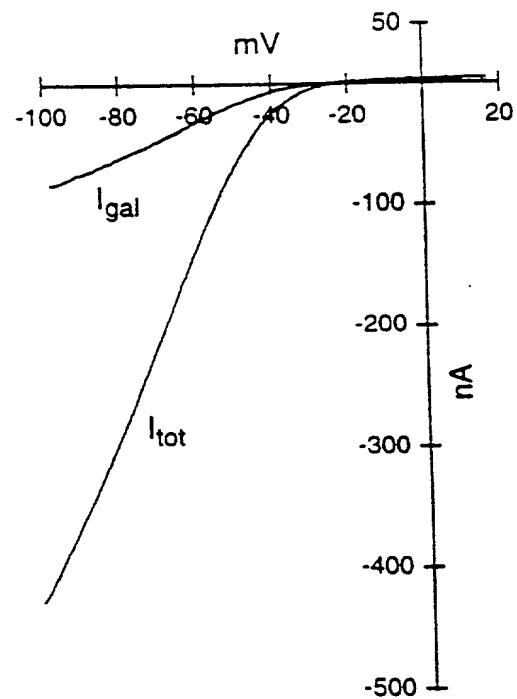
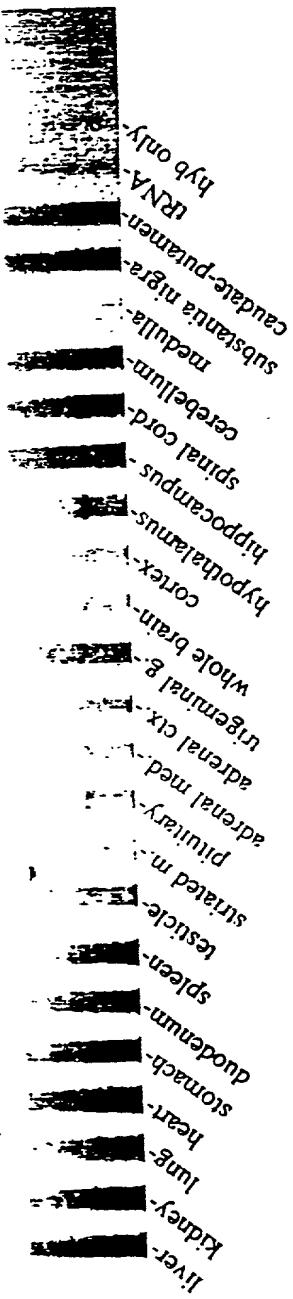


FIG. 9B



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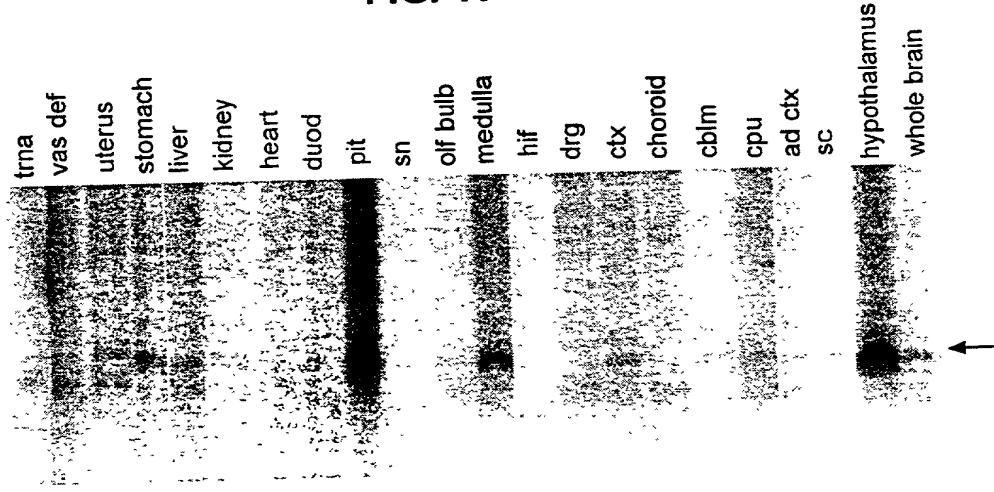
FIG. 10



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FIG. 11



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FIG. 12

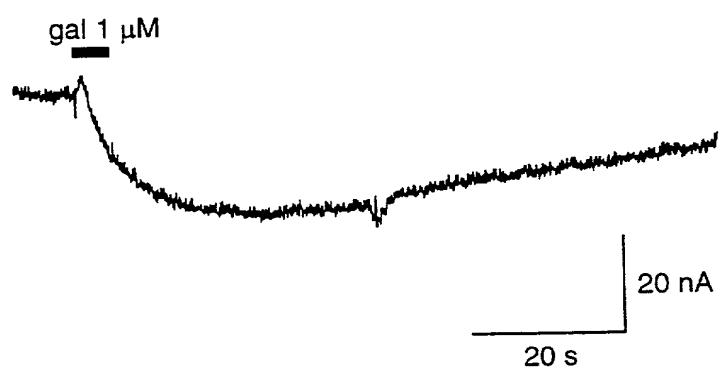


FIG. 13A
hGALR3-LM #228
 \pm - Pertussis Toxin

Guanine nucleotide effects

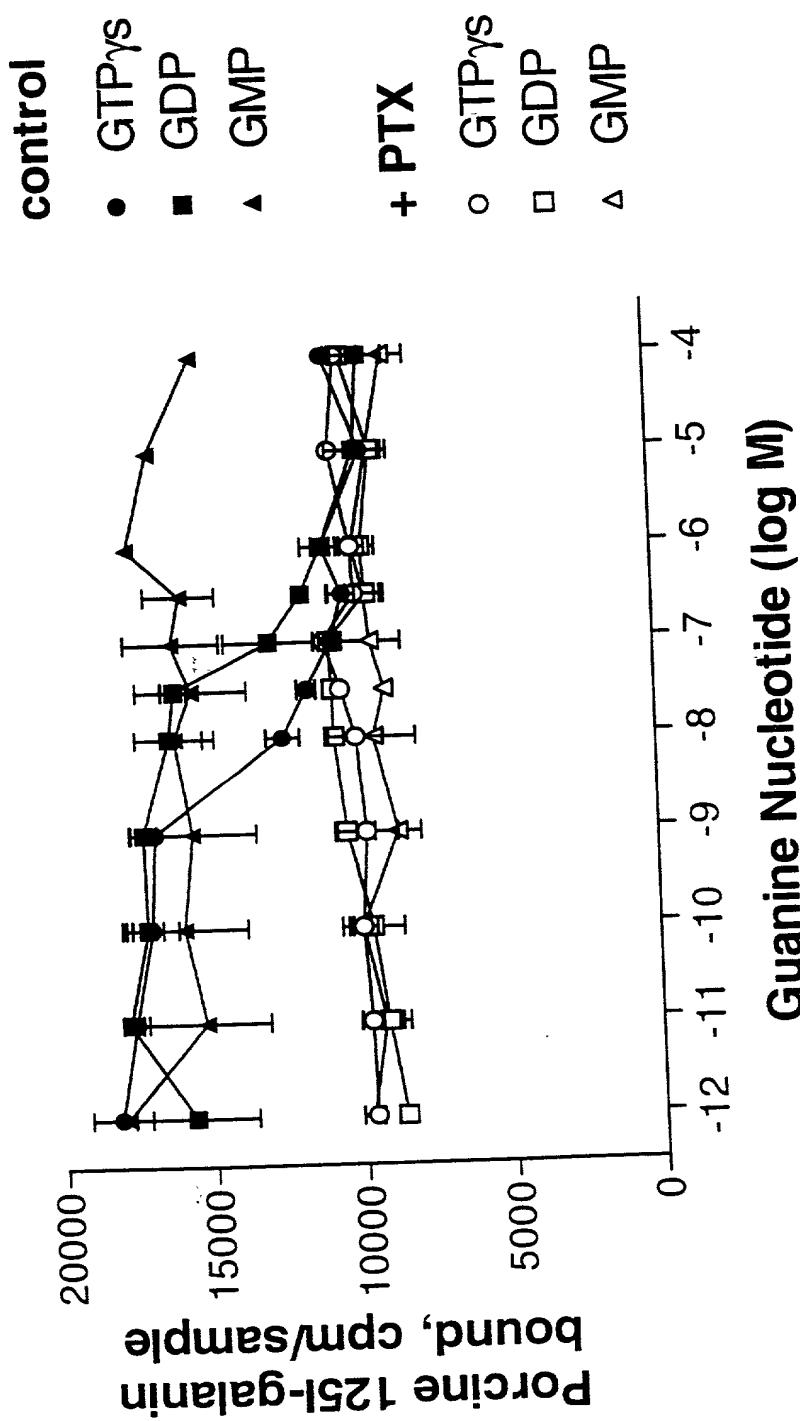


FIG. 13B

**Nonspecific Binding
with 1 μ M p galanin**

